

IN THE DRAWINGS

Please add the attached Fig. 2D showing a source 90 providing illumination 91 to a film 4.

### REMARKS

This application has been reviewed in light of the Office Action dated June 13, 2006. Claims 1-8, 16-30 and 33-36 are presented for examination. Claims 9-15, 31 and 32 have been cancelled, without prejudice or disclaimer of the subject matter presented therein. Claims 1, 16, and 21 have been amended to define more clearly what Applicants regard as their invention, and Claim 29 has been amended to depend from Claim 1. New Claims 33-36 have been added to provide Applicants with a more complete scope of protection. Claims 1, 16, and 21 and are in independent form. Favorable reconsideration is requested.

Support for the amendments to the independent claims appears in paragraphs (0088) and (0089) of the published version of the present application (U.S. Application Publication No. 2002/0081931).

The drawings were objected to for the reasons set forth at pages 2-3 of the Office Action. In particular, the Office Action requires that the electron beam, light, and light sources be shown in the drawings in compliance with 37 CFR 1.83(a). Attached is a proposed new Fig. 2D depicting, inter alia, a light source 90 from which light (or an electron beam) is emitted. Fig. 2D is supported by original Fig. 2B and paragraphs 0072, 0073, 0074, 0077, 0078, and 0086 of the published version of the present application. Electron beam illumination is referred to in paragraphs 0072 and 0073, a laser beam illumination embodiment is referred to in paragraphs 0074 and 0077, and illumination other than laser is referred to in paragraphs 0078 and 0086. Fig. 2D depicts light source 90

emitting either light or laser illumination or alternatively an electron beam. Entry of Fig. 2D is respectfully requested.

The title has been amended to be more descriptive, as required in the Office Action, and the specification has been amended to refer to Fig. 2D.

Claims 1, 2, 7, 9, 10, 16-19, and 29-32 have been rejected under 35 U.S.C. § 102(a) as being anticipated by U.S. Patent No. 6,221,426 (*Yamanobe*). Claims 1, 2, 7, 9, 10, 16-19 and 29-32 have been rejected under 35 U.S.C. § 102(e) as being anticipated by *Yamanobe*. Claims 3-6, 8, 11-15, and 20-28 have been rejected under 35 U.S.C. 103(a) as being unpatentable over *Yamanobe*.

Initially, cancellation of Claims 9-15, 31, and 32 renders their rejection moot, although Applicants do not concede the propriety of their rejection.

According to an aspect of the present invention to which Claim 1 relates, a method for manufacturing an electron-emitting device involves a step of providing a potential difference between a pair of electrodes to energize electrically an electro-conductive film between the electrodes, and that step is conducted after a step for heating the polymer film to change it into an electro-conductive film.

By virtue of this feature, a resistance of the high polymer film can be readily controlled to have a desired value, thereby readily controlling characteristics of the electro-conductive film formed by subjecting the high polymer film to pyrolysis. (See, e.g., paragraph (0085) of the above published version of the present application). (It should be noted, of course, that the claimed invention should not be construed as being limited only

to the embodiment(s) referred to herein, which are referred to for illustrative purposes only.)

*Yamanobe* refers to materials that can be used as thermosetting resin, including semi-polymerized materials obtained by dissolving substances such as furfuryl alcohol, furan resin and phenol resin into respective solvents. The materials are stated to be known to produce glassy carbon when treated thermally. Such materials also include polyacrylnitrile and rayon. Col. 11, lines 28-47. *Yamanobe* also refers to an electroconductive film 4 having a sheet resistance, an energization forming operation, and various materials that can be used for the film 4. Col. 9, lines 31-55. Figs. 5-8 of *Yamanobe*, relied on in the Office Action, relate to a flow diagram of a method of manufacturing an image forming apparatus, a surface conduction electron-emitting device, a vacuum treatment apparatus, and another surface conduction electron-emitting device, respectively.

However, it is respectfully submitted that, while *Yamanobe* may be well suited for its intended purpose, nothing in that reference would teach or suggest that a step of providing a potential difference to energize electrically an electro-conductive film is conducted after a step of heating the polymer film, as set forth in independent Claim 1. Accordingly, that claim is deemed to be clearly patentable over *Yamanobe*.

Independent Claim 16 recites providing a potential difference between a pair of electrodes, wherein that step is conducted after illuminating an electron beam onto at least a part of the polymer film, and Claim 21 recites providing a potential difference

between a pair of electrodes, wherein that step is conducted after illuminating light onto at least a part of the polymer film.

It is respectfully submitted that nothing in *Yamanobe* would teach or suggest those features, and therefore Claims 16 and 21 are clearly patentable over *Yamanobe*.

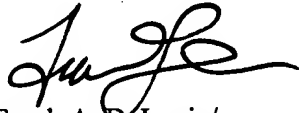
A review of the other art of record has failed to reveal anything which, in Applicants' opinion, would remedy the deficiencies of the art discussed above, as a reference against the independent claims herein. Those claims are therefore believed patentable over the art of record.

The other claims in this application are each dependent from one or another of the independent claims discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual consideration or reconsideration, as the case may be, of the patentability of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and early passage to issue of the present application.

Applicants' attorney of record may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,



/Frank A. DeLucia/

Frank A. DeLucia  
Attorney for Applicants  
Registration No. 42,476

FITZPATRICK, CELLA, HARPER & SCINTO  
30 Rockefeller Plaza  
New York, New York 10112-3801  
Facsimile: (212) 218-2200

NY\_MAIN 590425v1